

Tools for Slowing Conversion in Addition to an Offset or Cap and Trade System:
Ecosystem Services Districts
Draft Concept 07 07 08

Introduction

Carbon offsets or some other form of carbon credits can become a new source of income to forest landowners. However, it is unlikely that the price of a ton of CO₂ on either an offset market or as a tradable credit in a cap and trade system will approach the value of real estate development for forest lands in suburbanizing areas in western Washington and high-demand recreational/aesthetic markets in the eastern Cascades. Small forest landowners are the highest likelihood group of landowner to convert to non-forest land uses. Therefore, developing sources of income for these landowners in addition to forest products and carbon may help provide enough of an incentive to forego selling their holdings to developers or converting some of the lands themselves. Conversion is projected to cause significant CO₂ emissions from forest clearing over the next 50 years. Conversion also results in lost future sequestration potential. Incentive programs that provide additional sources of income that allow working forests to remain in the landscape could assist in slowing down the rate of forest loss. This type of program may especially make a difference in the land disposition decisions of small forest landowners. While such programs are outside the scope of strictly carbon-based programs, the end result of implementing a suite of incentives in addition to carbon offsets may be to reduce overall conversion-based emissions.

We propose the concept of "ecosystem services districts" and broader payment for ecosystem service programs as a complimentary mechanism to a carbon market as a source of income for landowners who are under pressure to convert to non-forest land uses. We assume that some sort of offset or credit market for forest-based carbon sequestration will emerge from implementation of HB2815. The ideas presented here are designed to be additional to carbon as a source of income to forest landowners.

Provision of Forest Ecosystem Services

In addition to carbon sequestration, other forest services include water flow regulation, water quality maintenance, air quality maintenance, local climate regulation, soil erosion control, habitat provision for threatened and endangered species, general biodiversity support, aesthetics, and recreation. People living downstream or in close proximity to forests benefit especially from water flow regulation, water quality, air quality, local climate regulation, and soil erosion control services. People of the state and from further away benefit from habitat and biodiversity protection, and aesthetic and recreation services.

By designing a system of payments to private landowners for the provision of these services on their lands, a flow of income in addition to commercial forest products can be created.

Payments for ecosystem service provision would be predicated on a contractual obligation

between landowners and the appropriate institutional entity that administers the program to provide the services for an agreed upon period of time and for a agreed upon level of quality. Both of these conditions would preclude development for the period of payments thereby improving the flow of ecosystem services to beneficiaries and preventing loss of forests.

Source of Payments

The source of income for payments to landowners could come from a variety of sources. For services that are used downstream or within the same watershed, watershed boundaries could serve as the ecosystem service district boundary. Such districts could function as Public Utility Districts in which fees are charged to maintain or restore collectively supported public benefits. Limited Improvement Districts could be a vehicle in cases where only one or two services were the focus of agreement. Downstream beneficiaries of flood water control could be charged an annual fee or fees from existing stormwater districts or city utilities could be used for "natural" infrastructure rather than human-engineered structures (where appropriate). "Impervious surface mitigation or impact fees could be placed on development within the watershed to generate funding. The state could authorize local jurisdictions the option of collecting fees for some specified ecosystem service benefit. One possibility would be for the state to authorize local conservation districts to increase their fees to address forest conservation for other services of local benefit.

For services that are used at a larger scale, state-wide funding programs could be created. State and federal funding designated for restoring the Puget Sound could be used as a source of payment to landowners to prevent pollution run-off into the sound. Additionally, a state-wide sustainability credit, paid for through a statewide bond campaign could be created. Credits would be awarded to landowners who agree to manage their lands for selected ecosystem services. This approach could also be pursued county by county. This could address either a narrow scope (e.g., just water quality) or multiple ecosystem services. Voluntary income sources similar to the federal "duck stamp" program could be generated alongside the sale of hunting and fishing licenses to preserve habitat for species of recreational or cultural importance on private lands. Counties that currently have not adopted Conservation Futures Funding – could do so and dedicate those funds to ecosystem service payments.

We recommend that the Departments of Natural Resources and Ecology be tasked with developing several pilot projects around the state to test out Payment for Ecosystem Services (PES) programs for small forest landowners. Such a pilot program would be authorized and funded by the Legislature.

Several payment for ecosystem services programs have been established in developing and developed countries (e.g., Costa Rica and Australia) and research has been conducted on what design elements and institutional mechanisms have worked well in a variety of situations. This body of knowledge should be drawn upon in designing any programs in Washington State.